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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,609	09/05/2006	Jurgen Meyer	39509-236168	3090

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EXAMINER	
LOEWE, ROBERT S	
ART UNIT	**PAPER NUMBER**
1796	

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12/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,609	MEYER ET AL.	
	Examiner	Art Unit	
	Robert Loewe	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/5/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETALIED ACTION

Claim Objections

Claim 2 is objected to for the following reason: the phrase "and then structurally modified" is unclear. For purposes of further examination, this phrase has been interpreted as "The process for producing the silanized, structurally modified silicas according to claim 1, comprising treating silicas with a surface-modifying agent to form a mixture (then) heat treating the mixture."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergstrom et al. (US Pat. 6,384,125), and further evidenced by Griffith et al. (US Pat. 5,908,660) and Burns et al. (US Pat. 6,051,672).

Claim 1: Bergstrom et al. teaches a silanized, structurally-modified silica characterized by vinyl silyl groups being fixed to the silica surface and further comprising hydrophobic groups such as dimethylsilyl additionally being fixed to the silica surface (10:40-67 and Table 2). Bergstrom et al. additionally teaches that the surface-modified silicas have a BET surface area of 100 to 500 m^2/g (3:57-61), an average particle size of 5-100 nm (claim 3), and a pH range of

about 3 to 8 (Table 2). The Office realizes that all of the claimed properties are not positively stated by Bergstrom et al. However, Bergstrom et al. teaches all of the claimed ingredients. Therefore, the claimed physical properties, i.e., the DBP absorption and carbon content would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support that applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

Further, Bergstrom further teaches that the surface-modified silica is prepared according to US patents 5,908,660 (Griffith et al.) and 6,051,672 (Burns et al.), whose references are incorporated into the teaching of Bergstrom et al. Burns et al. teaches in Table 1, a carbon content of no more than 10% based on the fact that only about 50% of the trimethylsiloxy groups of table 1 is made up of carbon (16.55% * 0.50 = 8%). The remaining carbon containing species contribute little to the overall carbon content.

Claim 2: Bergstrom et al. further teaches heat treating the mixture (10:50-55).

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Barthel et al. (US application 2003/0138715) and further evidenced by Scharfe et al. (US application 2003/0118499) and Mangold (US Pat. 5,976,480).

Claim 1: Barthel et al. teaches a process of preparing surface-modified, low-silanol silica by reacting one or more organosilanes with silica (abstract). Barthel et al. teaches that suitable organosilanes which are used in the surface modification include alkylchlorosilanes and

vinylalkoxysilanes (paragraph 0039). Barthel et al. further teaches that any desired mixture of organosilanes may be used. Barthel et al. additionally teaches that the surface-modified silicas have a BET surface area of 25 to 500 m^2/g (paragraph 0123), an average particle size of 5-100 nm (paragraphs 0077 and 120), and a carbon content of 1.7-5.4% (Table 1-1). Barthel et al. further teaches that the starting silica has, for example, a pH of 4.1 (paragraph 0183). Barthel et al. is silent with regards to the DPB absorption. However, Barthel et al. teaches all of the claimed ingredients. Therefore, the DBP absorption would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support that applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients. Further, pyrogenically prepared silica, the preferred starting silica of Barthel et al., is known to have DPB values which fall within the range of instant claim 1, as evidenced by Scharfe et al. (table in paragraph 0011) and Mangold (abstract).

Claim 2: Barthel et al. further teaches preparing a mixture of the silica and surface-modifying agent(s), followed by heating (paragraph 0156).

Claim 3: Barthel et al. further teaches that the silica can be first sprayed with water and then with the surface-modifying agent (paragraph 0185).

Claim 4: Barthel et al. further teaches that the silica is treated with the surface-modifying agent in vapor form (paragraph 0185). It is the position of the examiner that by introducing the surface-modifying agent via atomization through a nozzle, Barthel et al. teaches that the surface-modifying agent is introduced in vapor form. One definition of vapor as defined by Merriam-

Webster is "diffused matter (as smoke or fog) suspended floating in the air and impairing its transparency". While vapor is also defined as a material in its gaseous state, one could reasonably apply the first definition cited above; therefore Barthel et al. anticipates the limitations of instant claim 4.

Claims 5 and 6: Barthel et al. further teaches many post surface-modification steps can be performed, including grinding and compacting and conditioning (paragraphs 0061-0069).

Claim 7: Barthel et al. further teaches that the silicone rubber can be used as fillers (paragraph 0180).

Claim 8: Barthel et al. further teaches that prior to the heat-treatment step, a mixing step can be performed (residence time of 2.5 hours at 25 °C as taught in paragraph 0187).

Relevant Art Cited

The prior art made of record and not relied upon but is considered pertinent to applicants disclosure can be found on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 9:30 AM to 7:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSL
10-Dec-07

MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER
10/Dec/07